PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference CHEN3465PCT	**FOR FURTHER ACTION**	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/US02/38991	International filing date *(day/month/year)* 31 December 2002 (31.12.2002)		Priority date *(day/month/year)*

International Patent Classification (IPC) or national classification and IPC IPC(7): G01R 31/28 and US Cl.: 714/712,724

Applicant ZEROPLUS TECHNOLOGY CO., LTD.

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of _5_ sheets, including this cover sheet.

   ☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

   These annexes consist of a total of ___ sheets.

3. This report contains indications relating to the following items:

   I   ☒ Basis of the report

   II   ☐ Priority

   III   ☐ Non-establishment of report with regard to novelty, inventive step and industrial applicability

   IV   ☐ Lack of unity of invention

   V   ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

   VI   ☐ Certain documents cited

   VII   ☐ Certain defects in the international application

   VIII   ☐ Certain observations on the international application

Date of submission of the demand 09 July 2004 (09.07.2004)	Date of completion of this report 22 April 2005 (22.04.2005)

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Form PCT/IPEA/409 (cover sheet)(July 1998)

I. Basis of the report

1. With regard to the **elements** of the international application:*

   ☒ the international application as originally filed.

   ☒ the description:

   pages 1-14 as originally filed

   pages NONE , filed with the demand

   pages NONE , filed with the letter of _____ .

   ☒ the claims:

   pages 15-20 , as originally filed

   pages NONE , as amended (together with any statement) under Article 19

   pages NONE , filed with the demand

   pages NONE , filed with the letter of _____ .

   ☒ the drawings:

   pages 1-14 , as originally filed

   pages NONE , filed with the demand

   pages NONE , filed with the letter of _____ .

   ☐ the sequence listing part of the description:

   pages NONE , as originally filed

   pages NONE , filed with the demand

   pages NONE , filed with the letter of _____ .

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.
   These elements were available or furnished to this Authority in the following language _____ which is:

   ☐ the language of a translation furnished for the purposes of international search (under Rule23.1(b)).

   ☐ the language of publication of the international application (under Rule 48.3(b)).

   ☐ the language of the translation furnished for the purposes of international preliminary examination(under Rules 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

   ☐ contained in the international application in printed form.

   ☐ filed together with the international application in computer readable form.

   ☐ furnished subsequently to this Authority in written form.

   ☐ furnished subsequently to this Authority in computer readable form.

   ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

   ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

   ☐ the description, pages NONE

   ☐ the claims, Nos. NONE

   ☐ the drawings, sheets/fig NONE

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* *Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).*
** *Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.*

V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. STATEMENT

Novelty (N)	Claims	NONE	YES
	Claims	1-28	NO
Inventive Step (IS)	Claims	NONE	YES
	Claims	1-28	NO
Industrial Applicability (IA)	Claims	1-28	YES
	Claims	NONE	NO

2. CITATIONS AND EXPLANATIONS
Please See Continuation Sheet

Supplemental Box
(To be used when the space in any of the preceding boxes is not sufficient)

Claims 1-28 lack novelty under PCT Article 33(2) as being anticipated by Haag; George A. et al. (US 4445192 A, hereafter referred to as Haag).

As per claims 1 and 15:
Haag teaches a logic state analyzer for controlling a control circuit to fetch waveform data from the test sample and to store fetched waveform data in a memory (Measurement and Control Module 400 in Figure 10 of Haag is a logic state analyzer for controlling a control circuit State Recognition Module 200 to fetch waveform data from the test sample and to store fetched waveform data in a Data memory 410), for controlling said control circuit to transmit the waveform data from said memory to a computer through a transmission interface when the memory space of said memory used up, for driving said computer to write the received waveform data in a buffer thereof (Communication Bus 600 in Figure 10 of Haag is for controlling said control circuit State Recognition Module 200 to transmit the waveform data from said Data memory 410 to computer Microprocessor and Input/Output Module 800 in Figure 7 of Haag through a transmission interface Communication Bus 600 when the memory space of said memory used up; Note: the Microprocessor and Input/Output Module 800 in Figure 7 of Haag is inherently capable of transmitting the waveform data when the memory space of said memory used up, for driving the computer Microprocessor and Input/Output Module 800 to write the received waveform data in a buffer thereof, See In re Swinehart, 439 F.2d 210, 212-13, 169 USPQ 226, 228-29 [CCPA 1971] and In re Schreiber, 128 F.3d 1473, 1477, 44 USPQ2d 1429, 1431 [Fed. Cir. 1997]), and for running a test sample test signal auxiliary analyzing procedure for enabling the user to make data analyses based on the data received from said memory by said computer and displayed on a display screen of said computer (The Host Computer comprising Display 1000, display Driver 900, Microprocessor and Input/Output Module 800, Display Controller Module, Keyboard 1100 and Self-Test Probe Driver Module 1200 are used for running a test sample test signal auxiliary analyzing procedure for enabling the user to make data analyses based on the data received from said memory by said computer and displayed on a display screen of said computer).

As per claims 2 and 16:
Multiple Pattern Recognition Unit 315 in Figure 10 of Haag is a device including a waveform quality analysis function for qualifying the state condition of the waveforms (col. 6, lines 1-5, Haag).

As per claims 3 and 17:
The logic analyzer taught in Haag is inherently capable of analyzing a communication protocol analysis function since it is a device for monitoring the ongoing succession of states occurring in a collection of digital signals meeting certain qualification criteria (see Abstract, Haag).

As per claims 4 and 18:
The logic analyzer taught in Haag is inherently capable of analyzing a memory data analysis function since it is a device for

Supplemental Box
(To be used when the space in any of the preceding boxes is not sufficient)

monitoring the ongoing succession of states occurring in a collection of digital signals meeting certain qualification criteria (see Abstract, Haag).

As per claims 5 and 19:
received from said memory by said computer and displayed on a display screen of said computer (The Host Computer comprising Display 1000, display Driver 900, Microprocessor and Input/Output Module 800, Display Controller Module, Keyboard 1100 and Self-Test Probe Driver Module 1200 in Figure 7 of Haag are used for inputting, by the user, a test sample data sheet for making the related analysis.

As per claims 6 and 20:
The logic analyzer taught in Haag is inherently capable of allowing the user to select the code number of the test sample selected from a database by the user is used for making the related analysis (see Host Computer comprising Display 1000, display Driver 900, Microprocessor and Input/Output Module 800, Display Controller Module, Keyboard 1100 and Self-Test Probe Driver Module 1200 in Figure 7).

As per claims 7 and 21:
The logic analyzer taught in Haag is inherently capable of storing analyzed data in the form of a file since it includes Host Computer comprising Display 1000, display Driver 900, Microprocessor and Input/Output Module 800, Display Controller Module, Keyboard 1100 and Self-Test Probe Driver Module 1200 in Figure 7.

As per claims 8 and 22:
The logic analyzer taught in Haag is inherently capable of printing out analyzed data through a printer since it includes Host Computer comprising Display 1000, display Driver 900, Microprocessor and Input/Output Module 800, Display Controller Module, Keyboard 1100 and Self-Test Probe Driver Module 1200 in Figure 7.

As per claims 9 and 23:
The capacity of any microprocessor buffer of a computer inherently varies with the amount of the data.

As per claims 10 and 24:
The logic analyzer taught in Haag is inherently capable of making a debugging data analysis on the data fetched from said test sample since that is what logic analyzers are designed for.

As per claims 11 and 25:
Col. 1, lines 45-50 in Haag teach that said test sample test signal auxiliary analyzing procedure makes a comparison data analysis on the data fetched from said test sample.

As per claims 12 and 26:
Col. 5, lines 1-6 in Haag teach that said test sample test signal auxiliary analyzing procedure makes a search data analysis on the data fetched from said test sample.

As per claims 13, 14, 27 and 28:
Trace data is compressed debugging info hence The logic analyzer taught in Haag is inherently capable of compressing and decompressing test results fro use in analysis.

Claims 1-28 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry.

Form PCT/IPEA/409 (Continuation Sheet) (July 1998)